

25X1

Approved For Release 2005/12/14 : CIA-RDP85T00875R001900030092-4

Approved For Release 2005/12/14 : CIA-RDP85T00875R001900030092-4

CIA/OER/S-6484-74

Approved For Release 2005/12/14 : CIA-RDP85T00875R001900030092-4

5-6854

MICRO ONLY

Papers for Secretary Simon's
October Visit to Moscow

S-6484

[Redacted]

Office of Economic Research
1 October 1974

[Redacted]

25X1

20

Soviet Energy Strategy

The USSR has followed the path of other industrial nations in converting from coal to oil and gas. As a result of the recent rapid rise in oil prices, more attention is now being paid to use of coal in electric powerplants than has been the case for some time. Under existing plans, the share of oil and gas in total energy consumption -- almost three-fifths in 1973 (Table 1) -- will continue to grow. These fuels, however, will be reserved for higher priority domestic uses and for export. The contribution of nuclear power to the Soviet energy balance will not be of much importance until after the mid-1980s.

Since 1960, a remarkable expansion in the production of the major forms of energy has supported Soviet economic development (Table 2). ^{But} Additions to capacity are becoming increasingly expensive in the USSR. About 80% of the primary energy resources are located east of the Ural Mountains, far from the industrial centers where three-fourths of the energy is used. Expansion of oil and gas production entails development of reserves in remote Siberian areas where exploitation is hampered by harsh climate, difficult terrain, and permafrost.

[REDACTED]

25X1

25X1

Table 1

USSR: Production and Consumption of Energy, 1973

	<u>Production</u>		<u>Consumption</u>	
	<u>Million tons*</u>	<u>Percent</u>	<u>Million tons*</u>	<u>Percent</u>
Oil	613	41.8	463	35.4
Natural gas	281	19.1	288	22.0
Coal	468	31.9	454	34.8
Hydroelectric and nuclear power	48	3.3	44	3.4
Other**	57	3.9	57	4.4
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	1,467	100.0	1,306	100.0

* Million tons of hard coal equivalent (7,000,000 Kilocalories per metric tons.)

** Oil shale, peat, and fuelwood.

Table 2

USSR: Production of Fuels and Power, 1960-1975 Plan

Source	Unit of Production	1960	1965	1970	1971	1972	1973	1975 Plan
Crude Oil	Million metric tons	147.2	241.7	348.8	371.8	393.8	421	496
Natural Gas	Billion cubic meters	45.3	127.7	197.9	212.4	221.4	236.3	320
Coal*	Million metric tons	490.1	545.1	577.5	591.5	603.6	615	639
Electric Power:	Billion kilowatt-hours	292.3	506.7	740.9	800.4	857.4	915	1,065
Thermal		241.4	425.3	616.5	674.3	734.5	790	900
Hydro		50.9	81.4	124.4	126.1	122.9	125	165
Nuclear Power	Billion kilowatt-hours	0	1.4	3.5	3.5	7.7	11.7	25
Oil Shale	Million metric tons	14.1	21.3	24.3	26.1	29.3	N.A.	32.7
Peat	Million metric tons	53.6	45.7	57.5	44.9	57.0	N.A.	78.3
Fuelwood	Million cubic meters	74.4	86.9	69	69	66.7	N.A.	55.5

* Net production.

Three-fourths of Soviet coal reserves are also in Siberia. Most of this coal is suitable only for producing steam for heat or electric power generation. Nevertheless, construction of large powerplants near these deposits has not begun because neither local demand nor long distance transmission facilities are sufficiently developed. The USSR is, however, developing high-voltage, interconnected networks to move large amounts of power to consuming centers in the western part of the country.

Finding and developing new energy resources under Siberian conditions poses major problems:

- Much of Soviet geophysical and exploration equipment is obsolete and unsuited for complex geologic structures and permafrost
- Lack of computerized analytical facilities limits capability to locate new deposits.
- Soviet oil field operations are hampered by shortages of good quality drill pipe and casing, poor quality bits, under-powered mud pumps, and inadequate blowout preventers.

Exploitation of potential offshore oil deposits in northern and eastern seas will require Western equipment and know-how.

The USSR will strive to develop its energy resources for export as well as for domestic needs. For several years exports of oil have been the USSR's largest single source of foreign exchange. In 1973 exports to the West amounted to about 700,000 bpd and earned \$1.25 billion in hard currency. Net exports of oil in 1973 amounted to about 2.1 million bpd -- almost one-fourth of total crude oil output and about 10% of all energy produced. Moscow delivered 1.1 million bpd of oil to Eastern Europe in 1973, about two-thirds of East European oil supplies. The USSR will continue to provide the bulk of the oil needed by Eastern Europe, mostly through the Friendship pipeline but also by procuring Middle Eastern oil. By the early 1980s the USSR probably will be able to continue meeting its own needs and those of Eastern Europe only if exports to the West are held to about the present level.

The USSR now is a small net importer of natural gas, but deliveries to Western Europe are scheduled to grow considerably as a result of contracts with Austria, West Germany, Italy, and France. Negotiated in 1969-72, these contracts provided for delivery of large-diameter pipe and ancillary equipment to the USSR in exchange for future deliveries of gas. The USSR has also stepped up deliveries of natural gas to Eastern Europe. In 1973 it provided about 176 billion cubic feet, approximately 10% of Eastern Europe's total gas supply. By 1975, Eastern Europe will rely on the USSR for 20% of its total gas supply.

Soviet economic plans therefore depend on a continued rapid growth of energy supplies. The upward trend in consumption

will be reinforced by increased production of automobiles and trucks. Although leaders frequently stress the need to conserve energy and use it efficiently, increases in production are given priority over conservation.

The USSR is pushing cooperative ventures with US and Japanese firms to get Western assistance in developing Siberian gas deposits and to earn foreign exchange from sales of liquefied natural gas (LNG). US participation has become questionable because of pricing and financing problems. Even without US assistance, gas from West Siberian deposits could be sold to Western Europe when the Soviet pipeline network is completed. Whether Japan would participate in developing East Siberian deposits without the United States is uncertain. In any event, other foreign markets for East Siberian gas are unlikely to develop for a long time.

The Japanese have agreed to provide \$450 million to help finance development of coal reserves in East Siberia near Yakutsk. In return, the USSR is to export 104 million tons of coking coal to Japan during 1979-98. A cooperative arrangement also is underway between the USSR and Japan, with Gulf Oil Company as technical advisor, to locate and develop oil deposits in the offshore area around Sakhalin. If oil is discovered, Japan will be able to procure half the oil produced.

In the energy field, neither the USSR nor the US has

[REDACTED]

much bargaining power in relation to the other. Although the United States needs oil and the USSR needs modern equipment and technology, each can get along without the other. Soviet petroleum operations would be less efficient and growth in production might be smaller than would be the case with US equipment and technology. Nonetheless, the USSR has managed without US help and could continue to remain self-sufficient in oil and gas while earning substantial amounts of foreign exchange from exports. The United States, on the other hand, could use Soviet oil and gas, but the amounts obtained have been and probably would continue to be small relative to total US requirements.

Soviet Hard Currency Payments

In the past decade the USSR has been unable to generate sufficient exports to finance growing imports from hard currency countries. (Table 1)

- Since 1965, deficits have been financed chiefly by credits. The Soviets rebuilt their depleted gold reserve, selling almost none.
- In 1972 and 1973 Soviet hard currency deficit rose dramatically -- averaging \$1.5 billion a year -- because of record imports of grain and equipment.
- Soviet gold was used to finance about 40% of the 1972-1973 deficit. Credits took care of the rest.
- Soviet debt is expected to exceed \$4 billion in 1974. (Table 2)
- To ease its debt burden and to generate exports, the Soviets have concluded a number of so-called cooperative ventures with Western firms which call for repayment of credits extended in the products developed by the venture.

The US has provided the Soviets with substantial credits since the May 1972 Summit.

- About \$500 million in long-term Eximbank credits.
- About \$500 million in private credits matching Eximbank credits.
- About \$500 million in 3-year CCC credits for grain.
- About \$200 million in medium- and long-term credits from banks and other financial sources.

But there has been a turnaround in the Soviet hard currency picture.

- High oil and raw material prices will increase Soviet exports substantially and grain imports will drop in 1974. An export surplus of \$1.5 billion is expected in 1974 and possibly a larger surplus in 1975.
- High gold prices provide an additional cushion. At \$150 an ounce, sales out of current production would earn the Soviets over \$1 billion in 1974 and even more in subsequent years.

The strong Soviet hard currency position will improve the USSR's economic bargaining power for the next few years.

- Moscow can now afford to pay cash. It recently agreed to buy roughly \$800 million worth of

equipment for the Kursk steel complex in this fashion and has hinted that it might make similar offers to US companies.

- The USSR can resist high interest rates and is likely to bargain hard on other commercial terms.
- The Soviets can also consider postponing exports of some commodities, such as diamonds which probably will bring higher prices in the future.

In the longer term, payments prospects are less favorable, however.

- Declining oil exports by the end of the decade will curb the increase in export earnings.
- Debt will grow if Moscow chooses to maintain the growth of imports.
- Total debt could rise to as much as \$13 billion by 1980.

Table 1
USSR Hard Currency Trade Deficit^{a/}

Million US \$			
<u>Year</u>	<u>Exports</u>	<u>Imports</u>	<u>Balance</u>
1965	1,374	1,560	-186
1966	1,516	1,755	-238
1967	1,711	1,616	+95
1968	1,909	2,018	-109
1969	2,125	2,436	-311
1970	2,197	2,711	-514
1971	2,652	2,955	-303
1972	2,815	4,171	-1,357
1973	4,817	6,566	-1,749
1974 ^{b/}	7,500	6,000	+1,500

a. Based on official Soviet data.

b. Estimated.

25X1

Table 2
Soviet Credit Drawings and Repayments from the Developed West

Million US \$					
<u>Year</u>	<u>Credit Drawings</u>	<u>Interest Payments</u>	<u>Repayment of Principal</u>	<u>Net Credits</u>	<u>End of Year Dcbt</u>
1965	190	17	149	24	380
1966	275	20	150	105	505
1967	305	29	152	124	658
1968	510	38	217	255	951
1969	630	57	265	309	1316
1970	715	79	310	326	1722
1971	682	103	374	204	2029
1972	1030	122	451	457	2608
1973	1690	157	657	876	3641
1974 ^{a/}	1410	220	858	332	4194

a/ Preliminary

25X1

Soviet Foreign Economic Policy Toward the West

The chief Soviet goal in trade with the West is to obtain equipment and technology to raise the level of Soviet industrial technology and to achieve production goals more rapidly than Communist resources permit.

Lately the Soviet leadership has increasingly emphasized the value of Western technology to boost lagging productivity and to narrow the large and widening technological gap vis-a-vis the West.

- Soviet imports from the West have doubled since 1971 -- from almost \$3 billion to an estimated \$6 billion in 1974.
- New Soviet contracts for Western equipment increased from less than \$1 billion in 1971 to \$2.6 billion in 1973, and probably will be higher in 1974 (see Table).

Soviet policy has also emphasized cooperative agreements with Western governments and firms to acquire technology and capital.

- Cooperative ventures, mainly in resource development, have become a major Soviet

vehicle for attracting Western investment. Large projects are under way in the chemical, forestry, and energy fields.

- Long-term cooperation agreements with Western governments have encouraged similar agreements between the USSR and individual Western firms.

The US has become a major target in efforts to secure advanced technology, equipment, and other commodities.

- Soviet imports from the United States rose from \$150 million in 1971 to \$1.2 billion in 1973. Grain inflated the totals, but imports of equipment increased from \$60 million to \$200 million in the same period.
- Soviet contracts for US equipment have increased and will keep imports from the US in 1974 at high levels, despite a decline in imports of grain. Imports of US equipment may reach \$400 million.
- The USSR is seeking US capital, technology, and know-how to help develop Soviet resources and industry. Large gas and oil deals are currently in abeyance, but large plant and equipment deals are being negotiated.

- US-Soviet S&T agreements have led to about 30 Soviet technology agreements with US firms.

Soviet Equipment Orders from Developed West a/

	Million US \$			
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974 <u>b/</u></u>
Total	850	1,695	2,600	1,845
US	240	320	450	500
W. Germany	145	370	490	200
France	80	480	425	445
Japan	140	135	205	100
Italy	65	165	625	250
UK	120	75	155	210
Other	60	150	250	140

a/ Rounded to nearest \$5 million.

b/ January-August.

1974 Grain Prospects in the USSR and Eastern Europe

The USSR and Eastern Europe are expected to have good but not record grain crops this year. The harvest in both areas should largely cover domestic needs; major imports from the West will not be necessary.

USSR

Grain Production

We believe that the 1974 Soviet grain crop will be 198 million tons -- short of the official goal of 206 million tons but still the second largest grain crop in Soviet history.

Rainfall, the most important determinant of grain yields, was abundant throughout most of the USSR during May and June. At the end of June, it appeared likely that the output goal would be achieved.

In July, the weather took a turn for the worse. As the grain reached the harvesting stage in the West, heavy rains lodged the plants and hindered the harvest. Because much of the cut grain was left in the fields too long grain losses were high and the milling quality of the wheat was reduced. In the East, the weather was hot and dry while the grain was in the critical heading stage. We estimate that the drought destroyed 8 million tons of grain -- primarily wheat.

Prospects for Soviet Imports

The USSR will need 200 to 210 million tons of grain to cover domestic requirements and normal export commitments in FY 1975. Since carry-over stocks from last year's record harvest are 20 to 30 million tons, a crop of 198 million tons should be sufficient to make large-scale grain imports unnecessary in FY 1975. The sharp drop in grain purchases and a return to the usual level of grain exports will reestablish the Soviets as net exporters of grain in FY 1975.

The Soviets indeed have bought only small quantities of grain so far this year. Most of the 1 million tons of corn and wheat scheduled for delivery in FY 75 are leftovers from 1972 and 1973 contracts with the US. In addition, a small amount of corn was recently purchased from Argentina.

The Soviets can use the imported grain to offset shortfalls in certain kinds of grain. The corn will help feed the growing livestock herds; the wheat may be used to make bread since the milling quality of this year's wheat crop and the carryover stocks is doubtful.

Eastern Europe*Grain Production

We estimate that the 1974 East European grain crop at 72 million metric tons -- $1\frac{1}{2}$ tons below the 1973 record set in 1973. Although record crops were harvested in East Germany and Czechoslovakia, Poland's crop -- usually about 30% of the East European total -- flirted with disaster throughout the growing season. Nevertheless, Poland harvested about 20.5 million tons of grain, only 6% below the previous year's record. The results were also mixed in the southern countries. Hungary had a bumper harvest, but Bulgaria failed to improve over the past two harvests, while Romania had its second poor harvest in a row.

Prospects for East European Imports

East European grain imports in FY 75 are projected at 9 million tons, compared with 8 million tons in FY 74. The USSR probably will supply $4\frac{1}{2}$ million tons, mostly wheat.

* Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania.

[REDACTED]

Based on past trading patterns, the East Europeans will look to the United States for 2.0 to 2.5 million tons of grain, mostly corn, while seeking the balance from other Western sources.

The northern countries will account for almost all of the imports. East German and Czech requirements are expected to be about 3-1/2 million tons and 1-1/2 million tons, respectively. Poland probably will buy slightly more than 3 million tons. All these countries have the option of reducing grain imports by purchasing other feeds, such as oilcake and meal, or by cutting livestock goals.

In the South, Romania already has received \$31 million in CCC credits to buy US grain. Because of a poor corn crop, Bucharest asked for an additional \$19 million in CCC credits last week. Nevertheless, Romania will be able to export some 700,000 tons of grain, mostly wheat, about the same as in FY 74. Bulgaria is likely to export about 300,000 tons of wheat, almost all to Middle Eastern and African customers. Hungarian grain sales -- possibly as much as two million tons -- should offset much of Budapest's large trade deficit with the West, which approached \$300 million in the first half of 1974.